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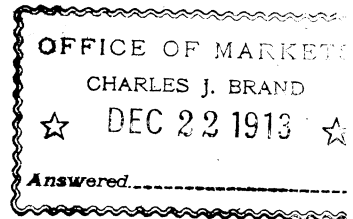
FARMERS' BULLETIN 546.

HOW TO MANAGE A CORN CROP IN KENTUCKY  
AND WEST VIRGINIA.

BY

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*Agriculturist, Office of Farm Management.*



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## LETTER OF TRANSMITTAL.

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U. S. DEPARTMENT OF AGRICULTURE,  
BUREAU OF PLANT INDUSTRY,  
OFFICE OF THE CHIEF,  
*Washington, D. C., May 14, 1913.*

SIR: I have the honor to transmit and to recommend for publication as a Farmers' Bulletin the accompanying manuscript, entitled "How to Manage a Corn Crop in Kentucky and West Virginia," by Mr. J. H. Arnold, Agriculturist, Office of Farm Management.

Respectfully,

WM. A. TAYLOR,  
*Chief of Bureau.*

Hon. D. F. HOUSTON,  
*Secretary of Agriculture.*

# CONTENTS.

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	Page.
Selection of land.....	5
Preparation of seed bed.....	5
Fertilizer.....	6
Seed.....	6
Planting.....	6
Cultivation.....	7
Harvesting.....	7
Sources of information regarding corn growing.....	7



# HOW TO MANAGE A CORN CROP IN KENTUCKY AND WEST VIRGINIA.

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## SELECTION OF LAND.

Land which has been in grass and clover sod for a year or two is best for corn. Such land would be increased in fertility by manure or by any kind of vegetable matter plowed into the soil. The land should be well drained; otherwise the corn produced will not pay for the labor put upon it. Any well-drained land with a fair quantity of vegetable matter in it can be made to produce a paying crop by proper fertilization and cultivation. The manure may be applied to the land before plowing. It will do the land good to put it on at any time, even as a top dressing.

## PREPARATION OF SEED BED.

Land that has been well sodded, having plenty of grass roots in it, may best be plowed in the fall or winter. The freezing of the soil pulverizes it and puts it in good condition for the planting of seed and for holding the moisture. Some soils, because of texture and lack of vegetable matter, pack during the winter, and for that reason it may not be economical to plow in fall or winter. Plow about 6 inches deep, and deeper if not too much "dead" clay would be turned to the surface thereby. In some cases it may benefit the seed bed to run a bull-tongue or subsoil plow behind the turning plow. This breaks up the subsoil and gives better drainage without bringing lifeless clay to the surface.

Immediately after plowing, the land should be harrowed, in order to break up clods and make the surface smooth, so as to hold moisture better. This is particularly important if the land has been plowed in the spring. Before planting, harrow and disk the land as often as time will permit. These operations conserve moisture, kill growing weeds, and put life into the soil. It pays, even though corn planting may be delayed thereby. In high altitudes and the more northern latitude of West Virginia it is dangerous to delay corn planting later than May 20.

### FERTILIZER.

Well-rotted stable manure is the best fertilizer that can be used for corn, but any kind will do the land good. When enough is not available to spread over an entire field, recourse may be had to commercial fertilizer. Commercial fertilizer should always be broadcasted. This is done so that the roots which fill all parts of the upper 3 or 4 inches of soil may get the food from the fertilizer. The best results are usually obtained by broadcasting the phosphate and potash before planting, and then thoroughly working it into the soil. These may be bought separately by the farmer and mixed. The proportion in the mixture should be 250 to 300 pounds of acid phosphate (14 to 16 per cent) to 50 pounds of muriate of potash. In many sections of Kentucky potash is not recommended or needed. When the roots of the corn are well distributed in all parts of the soil, or about the time the corn begins to tassel, the crop, if it is not vigorous, may be economically benefited by the application of nitrate of soda. This should be scattered between the rows at the rate of 75 to 100 pounds to the acre.

### SEED.

Get as good seed corn as can be had in the community and a variety that is standard and thoroughly tested for the locality. It is not advised to plant such late-maturing varieties as Boone County White and Johnson County White north of Parkersburg and on altitudes above 1,500 feet in West Virginia. In the northern part of West Virginia such varieties as Reed's Yellow Dent mature very well. On top of the Allegheny Mountains in West Virginia, 2,000 to 4,000 feet in altitude, none but the earliest maturing varieties will mature, even when planted early. Test the seed before planting.

### PLANTING.

On good soils that hold moisture fairly well and have plenty of plant food, plant 3 feet 6 inches each way, or drill 10 to 18 inches in the row and 3 feet 6 inches apart, putting two or three grains in the hill, depending on the fertility and water-holding power of the soil. Plant not over 3 inches deep. A uniform stand may be obtained by planting four to five grains of tested corn in the hill and thinning to two or three stalks in the hill, according to the fertility of the soil. Plant as soon as the seed bed is in good condition and the weather permits. In the high parts of West Virginia planting should not be delayed too long.

### CULTIVATION.

On smooth, loose ground without stones it does not injure corn to harrow the ground any time after planting until the corn is 2 to 4 inches high. It is best to slant the teeth of the harrow. Harrowing cleans the ground and conserves moisture. Cultivate every week or 10 days when possible. Use a small-tooth cultivator and cultivate shallow. The principal aim in cultivating should be to keep down weeds, whose growth takes from the soil moisture and food which the corn needs. Under average conditions, deep cultivation which disturbs the roots of the corn is positively injurious and may ruin the crop.

### HARVESTING.

The corn crop may be best utilized by cutting the corn and shocking it when the grain has hardened but before the stalks are dead and before frost. Each shock should contain the corn in 16 hills square. A profitable way to utilize a crop where a large number of stock is kept is to haul the shocked corn to the barns and shred it. It may also be husked in the field and the cattle turned in to eat the fodder. One of the best ways of utilizing the corn crop is to silo it. Corn should be put in the silo at the same time it would be ready to cut and put into the shock. In many places in western Kentucky it would be profitable to own a corn-harvesting machine which would cut and bind the corn to be shocked or siloed. It would not pay to own such a machine unless there was a large enough acreage—40 to 100 acres.

### SOURCES OF INFORMATION REGARDING CORN GROWING.

For specific information in regard to corn growing in a locality the farmer should consult experts in the State agricultural experiment station. A card or letter addressed to the State experiment station at Lexington, Ky., or Morgantown, W. Va., will receive attention. Information and assistance may also be had through the State commissioner of agriculture at Frankfort, Ky., or Charleston, W. Va. Farmers' Bulletins 81, 229, 253, 313, 400, 414, and 415 of the United States Department of Agriculture relate to corn growing. Farmers' Bulletin 537, entitled "How to Grow an Acre of Corn," by Mr. C. P. Hartley, in charge of the corn investigations of the United States Department of Agriculture, contains information of special value to corn growers. These publications will be sent without cost to any person making application therefor to a Senator or Representative in Congress or to the Secretary of Agriculture, Washington, D. C.